



# Case Study of Dynacraft

## Keys to Success



### Project Description



### Economic Value



### Challenges & Advice



### Benefits



### Stewardship Meaning



The Dynacraft plant, which is a 150,000 square-foot facility in Louisville, Kentucky, is a company within the PACCAR family of businesses. PACCAR is a global technology leader in the design, manufacture and customer support of premium light-, medium- and heavy-duty trucks under the Kenworth, Peterbilt and DAF nameplates. Dynacraft manufactures battery cables, hose assemblies and air conditioning hardlines and distributes products to both PACCAR truck plants and Kenworth and Peterbilt dealers in North America and Australia.

Since environmental responsibility is one of PACCAR's core values, management officials at the Louisville plant devised a plan to lessen the plant's environmental impact as it created an awareness in the employees about better ways to handle waste.

Bret Simon, plant manager at Dynacraft, says, "The facility initiated a recycling program and set a goal to send zero

waste to landfills. Dynacraft's objectives were to decrease waste from 15.1 to 3.0 pounds per truck, increase the number of recycling programs and to improve employee awareness. Those goals were more than exceeded."

Some of the nonrecyclable waste materials went to a waste-to-energy company for conversion to electricity or steam. Biodegradable items were turned into compost. Many items that could be recycled had been thrown away previously, and there were numerous factors contributing to that situation. Six Sigma tools allowed Dynacraft officials

to determine those factors and resolve them.



Zero waste to the landfill is a challenging goal, but the company met it and proved the economic value of the employees' efforts. Dynacraft increased its recycling streams by 65 percent, decreased waste to 0.2 pounds per truck and had annualized savings of \$20,000.

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“Our goal became zero waste to the landfill,” says Simon. “We did so well that we broke even on landfill costs.”

In an effort to be more sustainable, the company replaced 1000-watt metal halide lights with energy-efficient T5HO fluorescents. The T5 lighting is only 462 watts and the light much brighter, saving energy and improving the lighting in the plant.

? Before starting a recycling program, the company began a Six Sigma project in 2009, to find the best way to proceed.

Baseline measurements of pounds sent to the landfill showed 60 percent of the plant waste going to a landfill. At the beginning of the project, there was little in the way of a recycling program and a lack of recycling cans for employees, and training regarding recycling.



Bret Simon, plant manager, stands in front of reusable bins that deliver parts.

The Six Sigma project targeted these areas to improve.

Another challenge was finding extra space to gather materials to be recycled. In an area of the plant where new product lines, which were 60 percent of the company’s business, would be located, there was no empty space. A wise use of the space and appropriate containers were only two of the keys to success.

“Our employees made the difference,” says Simon. “We had to provide enough containers for them to recycle, and they used a lot of Six Sigma tools. We did a waste stream audit of dumpsters and began baling cardboard.”

For companies considering a similar recycling project, Simon recommends identifying the goals and then measuring things. Talk to employees because they are knowledgeable, have ideas and see everything.

+ “One of the surprising benefits of recycling is not a lot is left to send to the landfill or waste-to-energy facility,” says Simon. “We didn’t know we were going to save money by recycling. So we asked



Conveniently placed recycling containers save steps for employees.

ourselves how we could do better than zero waste to the landfill. The answer is doing more projects with KY EXCEL to increase our environmental efforts.



“Eighteen months earlier, we were sending 64 percent of our waste to landfills. We didn’t think it was possible to have zero waste to the landfill, but we have done it and at a lower cost,” continues Simon. “Our employees are proud of what they are doing. This shows the power of the recycling program. It made sense for us to do this.”

**Helpful Hint:** Lean and Six Sigma together can help you meet your environmental goals by reducing waste and variability.